ABSTRACT OF THE DISCLOSURE

The present invention relates to gene therapy for the treatment of tumors. The invention more particularly relates to introduction of a gene encoding an anti-angiogenic factor into cells of a tumor, for example with a defective adenovirus vector, to inhibit growth or metastasis, or both, of the tumor. In a specific embodiment, delivery of a defective adenovirus that expresses the amino terminal fragment of urokinase (ATF) inhibited growth and metastasis of tumors. These effects were correlated with a remarkable inhibition of neovascularization within, and at the immediate vicinity of, the injection site. Delivery of a defective adenovirus vector that expresses kringles 1 to 3 of angiostatin inhibited tumor growth and tumorigenicity, and induced apoptosis of tumor cells. The invention further provides viral vectors for use in the methods of the invention.